Aircraft Manufacturer British Aerospace
Aircraft Engine ManufacturerAvco Lycoming (ALF 502R-5)
No. of Engines 4 Engine Rating 6,970 lb
Min. T/O Wt. 56.5 k-1b * Min. T/O Dist. @ Min. T/O Wt †
* Min. T/O Dist. @ Min. T/O Wt. With Abort Dist
Max. T/O Wt. Peace-Time 93.0 k-1b Max. T/O Wt. War-Time 93.0 k-1b
* Min. T/O Dist. @ Max. T/O Wt. War-Time 4,950 ft
* Min. T/O Dist. @ Max. T/O Wt. War-Time With Abort Dist
Min. Ldg. Wt. 75.5 k-1b Max. Ldg. Wt. 81.0 k-1b
* Min. Ldg. Dist. @ Min. Ldg. Wt
* Min. Ldg. Dist. @ Max. Ldg. Wt. 3,620 ft

* These distances are at 59°F, at sea level, with zero runway gradient, and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexib	le Pavement	Subg	rades
				Ultra				Very
	High	Medium	Low	Low	High	Medium	Low	Low
Weight	_ <u>A</u>	<u>B</u>	<u> </u>	D	_ <u>A</u>	B	<u>C</u>	D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-462. British Aerospace 146-Model 200

Aircraft Manufacturer	British Aerospace
Aircraft Engine Manufactu	arer Avco Lycoming (ALF 502R-5)
No. of Engines 4	Engine Rating 6,970 lb
Min. T/O Wt. 60.1 k-1b	* Min. T/O Dist. @ Min. T/O Wt
* Min. T/O Dist. @ Min. T	C/O Wt. With Abort Dist
Max. T/O Wt. Peace-Time	93.0 k-lb Max. T/O Wt. War-Time 93.0 k-lb
* Min. T/O Dist. @ Max. T	7/0 Wt. War-Time 4,950 ft
* Min. T/O Dist. @ Max. T	7/0 Wt. War-Time With Abort Dist
Min. Ldg. Wt. 77.5 k-1b	Max. Ldg. Wt. 83.0 k-1b
* Min. Ldg. Dist. @ Min.	Ldg. Wt
* Min. Ldg. Dist. @ Max.	Ldg. Wt. 4,030 ft
	are at 59°F, at sea level, with zero runway n a clean dry runway surface.

and on a clean dry runway surface.

ACN

	Rigid Pavement Subgrades				Flexib	le Pavemen	t Subgr	rades
		· · · · · · · · · · · · · · · · · · ·		Ultra				Very
	High	Medium	Low	Low	H ig h	Medium	Low	Low
Weight	<u>A</u>	B	<u>C</u>	<u>D</u>	A	B	<u>_C</u>	D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Figure A-463. British Aerospace 146-Model 300

Aircraft Manufacturer	Aerospatiale	(formerl	y manufac	ctured by	Sud-Av	<u>iatio</u>
		•				
Aircraft Engine Manufact	urer Turbo	meca (Art	ouste III	IB)		_
No. of Engines i	_	Engine Rat	ting <u></u>	370 SHP		
Minimum Take-Off Weight	2.70 k-lb	_				
Maximum Take-Off Weight	Peace-Time	4.30 k-11)			
Maximum Take-Off Weight	War-Time 5	.07 k-1b Ith slung	load)			
Maximum Landing Weight	4.30 k-lb					
Hover Ceiling (In Ground	Effect) 9	,675 ft At 4.3 k-1	<u>.b)</u>			
iover Seiling (Gut of Gr	ound Effect)	5,085 f	t 3 k-1b)			
		ACN				
Rigid Pa	vement Subgra		Flexible	Pavement	Subgra	
High Med:		Ultra Lo w	High	Medium	Low	Very Low

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-464. Aerospatiale 315B, Lama

Weight

Aircraft Manufacturer Aerospatiale
Aircraft Engine Manufacturer Turbomeca (Turmo IVC)
o. of Engines 2 Engine Rating 1575 SHP
Minimum Take-Off Weight 9.39 k-lb
Maximum Take-Off Weight Peace-Time 16.3 k-1b
Maximum Take-Off Weight War-Pime 16.3 k-1b
Maximum Landing Weight 16.3 k-1b
Hover Ceiling (In Ground Effect) 7,545 ft
Hover Ceiling (Out of Ground Effect) 5,575 ft

	Rig	id Pavemen	nt Subg	rades	Flexib	le Pavemen	t Subg	rades
	·			Ultra				Very
	High	Medium	Low	Low	High	Medium	Low	Low
Weight	A	B	_C_	D	<u>A</u>	B	<u>C</u>	D

Note: Adequate aircraft data is not available to express the relative structural effect of the aircraft.

Aircraft Manufacturer Aerospatiale
Aircraft Engine Manufacturer Turbomeca (Makila IA)
No. of Engines 2 Engine Rating 1780 SHP
Minimum Take-Off Weight 10.7 k-lb
Maximum Take-Off Weight Peace-Time 18.4 k-lb
Maximum Take-Off Weight War-Time 20.6 k-lb (With slung load)
Maximum Landing Weight 18.4 k-1b
Hover Ceiling (In Ground Effect) 8,900 ft (At 18.4 k-lb)
Hover Ceiling (Out of Ground Effect) 6.890 ft (At 18.4 k-lb)

ACN

	Rig	Rigid Pavement Subgrades_				Flexible Pavement		
				Ultra				
Weight	High A	Medium B	Low C	Low	High A	Medium B	Low C	Low D
11	3	3	3	3	3	3	3	3
18	5	5	5	5	٤,	5	5	6
21	6	6	ŧ;	•	$\boldsymbol{\Theta}$	6	6	7

Figure A-466. Aerospatiale 332C, Super Puma

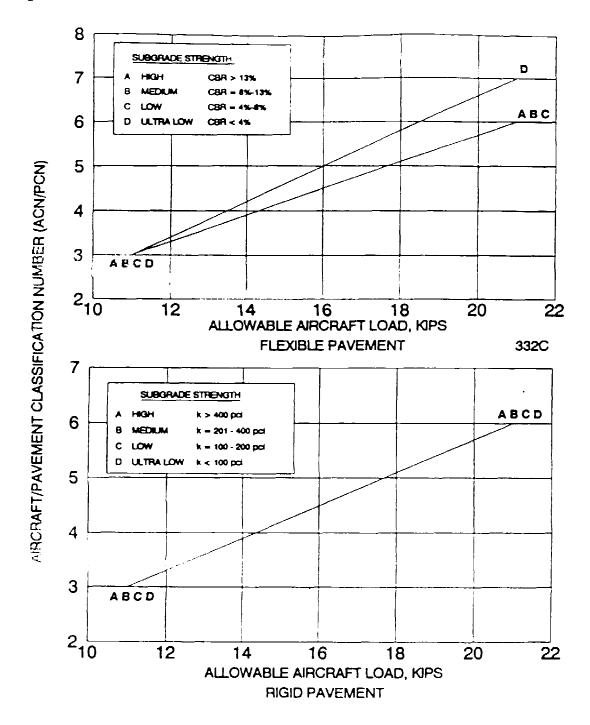


Figure A-467. Aerospatiale 332C, ACN/PCN Curves

Aircraft Manufacturer Ae	rospatiale
Aircraft Engine Manufacture	er <u>Turbomeca (Makila IA)</u>
No. of Engines 2	Engine Rating <u>1780 SHP</u>
Minimum Take-Off Weight 11	1.2 k-1b
Maximum Take-Off Weight Pea	ace-Time <u>18,4 k-1b</u>
Maximum Take-Off Weight War	r-Time 20.6 k-lb (With slung load)
Maximum Landing Weight 18	3.4 k-1b
Hover Ceiling (In Ground Ef	8,900 ft (At 18.4 k-1b)
hover Ceiling (Out of Groun	6,890 ft (At 18.4 k-1b)

ACN

	Rig	id Pavemer	nt Subg	rades	Flexib	Subgrades		
<u>Weight</u>	H1gh A	Medium B	Low C	Ultra Low D	High A	Medium B	Low C	Very Low D
11 18 21	3 5 6	3 5 6	3 5 6	3 5 6	3 5 6	3 5 6	3 5 6	3 6 7

Figure A-468. Aerospatiale 332L, Super Puma

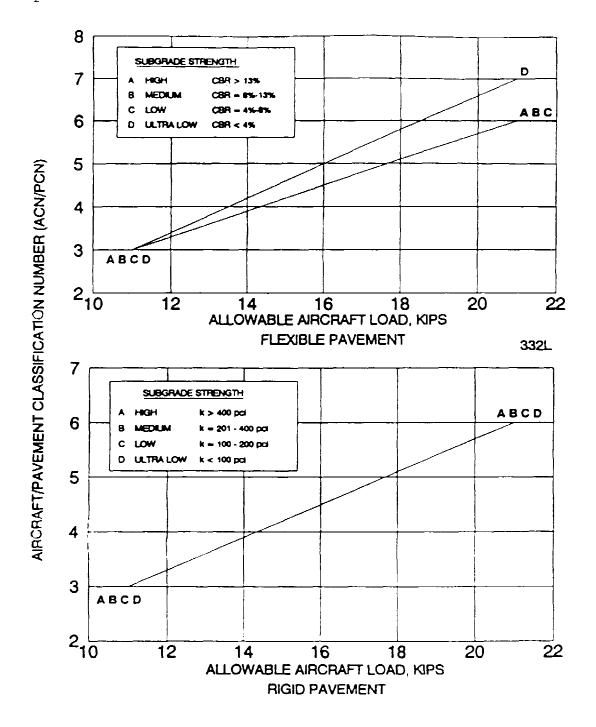


Figure A-469. Aerospatiale 332L, ACN/PCN Curves

Aircraft Ma	nufacturer	Aeros	patiale		 -			
Aircraft En	gine Manuf	acturer	Turbo	meca (Ast	azou III.	A)		·
No. of Engi	nes <u>l</u>		į	Engine Ra	ting _	590 SHP		
Minimum Tak	e-Off Weig	ht <u>2.72</u>	k-lb	-				
Maximum Tak	e-Off Weig	ht Peace-	Time _	3.97 k-	<u>lb</u>			
Maximum Take	e-Off Weig	ht War-Ti	me <u>3</u>	.97 k-1b	<u> </u>			
Maximum Land	ding Weigh	3.97	k-1b	_				
Hover Ceili	ng (In Gro	und Effec	t) <u>9</u>	,350 ft	_			
Mover C eili i	ng (Out of	Ground E	ffect)	6,560	ft			
				ACN				
	Rigid	Pavement		des Ultra	Flexible	Pavement	Subgr	ades Very
Weight	High A			Low D	High A	Medium B	Low C	Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-470. Aerospatiale 341, Gazelle

Aircraft Manufacturer	Aerospatiale		
Aircraft Engine Manufact	urer <u>Turbomec</u>	a (Arriel)	·
No. of Engines 1	_ Eng	ine Rating	641 SHP
Minimum Take-Off Weight	2.95 k-1b	•	
Maximum Take-Off Weight	Peace-Time	.3 k-1b	
Maximum Take-Off Weight	War-Time 4.63	k-lb slung load)	
Maximum Landing Weight	4.3 k-1b		
Hover Ceiling (In Ground	Effect) 9,6	75 ft 4.3 k-1b)	
Hover Ceiling (Out of Gr	ound Fffect)	7,380 ft (At 3.3 k-1b)	

	Rigid Pavement Subgrades				Flexib	t Subg	Subgrades	
Weight	High A	Medium B	Low C	Ultra Low D	H1gh A	Medium B	Low C	Very Low D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-471. Aerospatiale 350B, Astar

Very

Low

D

Low

C

Aircraft Manufacturer	Aerospatiale
Aircraft Engine Manufact	urer Avco Lycoming (LTS 101-600A.2)
No. of Engines 1	Engine Rating 616 SHP
Minimum Take-Off Weight	2.96 k-1b
Maximum Take-Off Weight	Peace-Time 4.3 k-1b
Maximum Take-Off Weight	War-Time 4.63 k-1b (With slung load)
Maximum Landing Weight	4.3 k-1b
Hover Ceiling (In Ground	Effect) 8,200 ft (At 4.3 k-1b)
Hover Ceiling (Out of Gr	ound Effect) 5,900 ft (At 4.3 k-1b)
	ACN
Rigid Pa	vement Subgrades Flexible Pavement Subgrades

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

High

Α

Medium

В

Ultra

Low

D

High

_<u>A</u>__

Weight

Medium

В

Low

С

Figure A-472. Aerospatiale 350D, Astar

Aircraft Manu	facturer	Aerospatia	le				
Aircraft Engi	ne Manufact	urer All	ison (250-0	20F)			
No. of Engine	s <u>2</u>	_	Engine Ra	ting	425 SHP		
Minimum Take-	Off Weight	3.41 k-1b					
Maximum Take-	Off Weight	Peace-Time	4.63 k-	1b			
Maximum Take-	Off Weight	War-Time	4.63 k-1b				
Maximum Landi	ng Weight	4.63 k-1b	. <u></u>				
Hover Ceiling	(In Ground	Effect)	7,215 ft				
Hover Ceiling	(Out of Gr	ound Effect	4,920	<u>f</u> t			
			ACN				
	Rigid Pa	vement Subg	rades	Flexible	Pavement	Subera	ades
			Ultra				Very
	**	ium Low			Medium		Low
Weight	A B	C	D	Α	В	C	D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-473. Aerospatiale 355E, Twinstar

Aircraft Manufacturer	Aerospatiale
Aircraft Engine Manufact	urer <u>Allison (250-C2OF)</u>
No. of Engines 2	Engine Rating 425 SHP
Minimum Take-Off Weight	3.51 k-1b
Maximum Take-Off Weight	Peace-Time 5.07 k-1b
Maximum Take—Off Weight	War-Time 5.51 k-lb (With slung load)
Maximum Landing Weight	5.07 k-1b
Hover Ceiling (In Ground	Effect) 6,725 ft (At 5.07 k-1b)
Hover Ceiling (Out of Gr	ound Effect) 7,700 ft (At 5.07 k-1b)

	Rigid Pavement Subgrades			Flexib	t Subg	Subgrades		
				Ultra				Very
	H ig h	Medium	Low	Low	High	Medium	Low	Low
Weight	A	В	С	D	_ A	B	<u>C</u>	D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-474. Aerospatiale 355F, Twinstar

Aircraft Manufacturer Aerospatiale
Aircraft Engine Manufacturer Allison (250-C20F)
o. of Engines 2 Engine Rating 425 SHP
Minimum Take-Off Weight 3.54 k-lb
Maximum Take-Off Weight Peace-Time 5.29 k-1b
Maximum Take-Off Weight War-Time 5.51 k-1b (With slung load)
Maximum Landing Weight 5.29 k-1b
Hover Ceiling (In Ground Effect) 7,700 ft (At 5.29 k-1b)
Hover Ceiling (Out of Ground Effect) 5,475 ft (At 5.29 k-1b)
ACN

	Rigid, Pavement Subgrades			Flexible Pavement Subgrace				
				Ultra				Very
	High	Medium	Low	Low	High	Medium	Low	Low
Weight	A	В	С	_ D	_A	B	<u>C</u>	D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Aircraft Manufacturer	Aerospatiale	
Aircraft Engine Manufact	urer <u>Turbomeca (Astazou XVIIIA)</u>	***
No. of Engines 1	Engine Rating 1050 SHP	
Minimum Take-Off Weight	3.91 k-1b	
Maximum Take-Off Weight	Peace-Time 6.61 k-1b	
Maximum Take-Off Weight	War-Time 6.61 k-1b	
Maximum Landing Weight	6.61 k-1b	
Hover Ceiling (In Ground	Effect) 8,000 ft	
Hover Ceiling (Out of Gr	ound Effect) 5,700 ft	
	ACN	
Rigid Pa	evement Subgrades Flexible Pavement Subgra	
High Med Weight A E	Ultra Hium Low Low High Medium Low B C D A B C	Very Low D

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

6,610 1b/73 psi**

Figure A-476. Aerospatiale 360C, Dauphin

High

_A__

Weight

Med1um

В

Low

С

Aircraft Manufacturer Aerospatiale
Aircraft Engine Manufacturer <u>Turbomeca (Arriel)</u>
No. of Engines 2 Engine Rating 680 SHP
Minimum Take-Off Weight 4.79 k-lb
Maximum Take-Off Weight Peace-Time 7.5 k-lb
Maximum Take-Off Weight War-Time 7.5 k-1b
Maximum Landing Weight 7.5 k-lb
Hover Ceiling (In Ground Effect) 11,710 ft
Hover Ceiling (Out of Ground Effect) 9,315 ft
ACN
Rigid Pavement Subgrades Ultra Flexible Pavement Subgrades Very

7,500 1b/73 psi**

High

<u>A</u>

Medium

В

Low

D

Low

C

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Low

D

Aircraft Manufacturer Aerospatiale
Aircraft Engine Manufacturer <u>Turbomeca (Arriel IC)</u>
No. of Engines 2 Engine Rating 710 SHP
Minimum Take-Off Weight 5.34 k-lb.
Maximum Take-Off Weight Peace-Time 8.82 k-lb
Maximum Take-Off Weight War-Time 8.82 k-lb
Maximum Landing Weight 8.82 k-1b
Hover Ceiling (In Ground Effect) 3,445 ft
Hover Ceiling (Out of Ground Effect) 3,445 ft

	Rigid Pavement Subgrades			Flexib	Subgrades			
			****	Ultra				Very
	H1gh	Medium	Low	Low	High	Medium	Low	Low
Weight	<u>A</u>	В	<u>C</u>	D	<u>A</u>	<u>B</u>	<u> </u>	<u>D</u>

8,820 1b/101 psi**

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Aircraft Manufacturer Agusta
Aircraft Engine Manufacturer <u>Allison (250-C20B)</u>
No. of Engines 2 Engine Rating 400 SHP
Minimum Take-Off Weight 3.56 k-lb
Maximum Take-Off Weight Peace-Time 5.78 k-lb
Maximum Take-Off Weight War-Time 5.78 k-1b
Maximum Landing Weight 5.78 k-1b
Hover Ceiling (In Ground Effect) 7,700 ft
Hover Ceiling (Out of Ground Effect) 6,000 ft
ACN

	Rigid Pavement Subgrades			Flexib	Subgrades			
				Ultra			<u></u>	Very
	High	Medium	Low	Low	High	Medium	Low	Low
Weight	<u>A</u>	B	<u>C</u>	<u>D</u>	<u>A</u>	B	<u>C</u>	<u> </u>

5,780 1b/85 psi**

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

Aircraft Manufacturer	Agusta
Aircraft Engine Manufa	cturer <u>Allison (250-C20B)</u>
No. of Engines 2	Engine Rating 420 SHP
Minimum Take-Off Weigh	t 3.67 k-1b
Maximum Take-Off Weigh	t Peace-Time 5.78 k-1b
Maximum Take-Off Weigh	t War-Time 6.04 k-1b
Maximum Landing Weight	5.78 k-1b
Hover Ceiling (In Grou	nd Effect) 7,700 ft (At 5.78 k-1b)
hover Ceiling (Out of	Ground Effect) 4,990 ft (At 5.78 k-1b)
	ACN
Rigid	Pavement Subgrades Flexible Pavement Subgrades
High Meight A	Ultra Very edium Low Low High Medium Low Low B C D A B C D

** The relative structural effect of an aircraft with a weight less than 12,500 pounds is reported as maximum aircraft weight and maximum tire pressure.

6,040 lb/85 psi**

Aircraft Manufacturer Bell Helicopter
ircraft Engine Manufacturer <u>Lycoming (TVO-435-25)</u>
No. of Engines 1 Engine Rating 260 HP
Minimum Take-Off Weight 2.22 k-1b
Maximum Take-Off Weight Peace-Time 2.85 k-1b
Maximum Take-Off Weight War-Time 2.85 k-lb
Maximum Landing Weight 2,85 k-lb
Hover Ceiling (In Ground Effect) 18,000 ft
Hover Ceiling (Out of Ground Effect) 18,000 ft

	Rigid Pavement Subgrades				Flexib	t Subg	Subgrades	
				Ultra				Very
	High	Medium	Low	Low	High	Medium	Low	Low
Weight	Α	B	C	_ D_	A	B	<u></u>	D

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.